

Amendments to the Claims:

The following is a complete set of claims in this application, with markings indicating the changes introduced by the present amendment:

WHAT IS CLAIMED IS:

1 **Claim 1** (currently amended): Apparatus producing a self-regulating fluid bearing between a
2 rotor and stator wherein said stator is a laminate of platelets, said apparatus comprising:
3 first signal generating means ~~a pressure transducer~~ for generating ~~a an electrical~~
4 signal representative of a pressure change within a first gap between
5 opposing surfaces of said rotor and said stator, said pressure change being
6 one that is indicative of a displacement of said rotor caused by a load
7 imposed on said rotor;
8 second signal generating means for generating a signal representative of a
9 pressure change within a second gap between opposing surfaces of said
10 rotor and said stator, said pressure change being one that is indicative of a
11 displacement of said rotor caused by a load imposed on said rotor;
12 a source of pressurized fluid;
13 a first channel configured to convey fluid from said source of pressurized fluid to
14 said first gap and a second channel configured to convey fluid from said
15 source of pressurized fluid to said second gap, said first and second
16 channels residing in said stator and defined by superimposed openings in
17 adjacent platelets; and
18 fluid flow regulating means for regulating fluid flow through said first and second
19 channels ~~channel~~ in response to said signals ~~electrical signal~~ to reduce said
20 displacements ~~displacement~~.

1 **Claims 2-6** (canceled)

1 **Claim 7** (currently amended): The apparatus of claim 1 [4] wherein said rotor has an axis of
2 rotation and said first and second gaps are separated along said axis of rotation, said pressure
3 changes resulting from an axial force on said rotor.

1 **Claim 8** (currently amended): The apparatus of claim 1 [4] wherein said rotor has an axis of
2 rotation and said first and second gaps are separated along a line transverse to said axis of
3 rotation, said pressure changes resulting from a radial force on said rotor.

1 **Claim 9** (previously presented): Apparatus producing a self-regulating fluid bearing between a
2 rotor and stator, said apparatus comprising:

3 first and second signal fluid flow signals representative of fluid pressures within first and
4 second gaps, respectively, on opposing surfaces of said rotor and stator and on
5 opposite sides of said rotor, such that changes in said pressures are indicative of a
6 displacement of said rotor caused by a load imposed on said rotor;

7 a source of pressurized fluid;

8 first and second channels configured to convey fluid from said source of pressurized fluid
9 to said first and second gaps, respectively; and

10 a bistable fluidic amplifier with individual inlets for said first and second fluid flows such
11 that a net inflow from said first fluid flow diverts pressurized fluid from said
12 source of pressurized fluid to said first channel and a net inflow from said second
13 fluid flow diverts said pressurized fluid to said second channel.

1 **Claim 10** (previously presented): Apparatus producing a self-regulating fluid bearing between a
2 rotor and stator, said apparatus comprising:

3 means for generating fluid flows directly from first and second gaps, respectively,

4 between opposing surfaces of said rotor and stator and on opposite sides of said

5 rotor, said fluid flows being indicative of a displacement of said rotor caused by a

6 load imposed on said rotor;

7 a source of pressurized fluid;

8 first and second channels configured to convey fluid from said source of pressurized fluid
9 to said first and second gaps, respectively; and
10 a bistable fluidic amplifier with individual inlets for said first and second fluid flows such
11 that a net inflow from said first gap diverts pressurized fluid from said source of
12 pressurized fluid to said first channel and a net inflow from said second gap
13 diverts said pressurized fluid to said second channel.

1 **Claim 11** (original): The apparatus of claim 10 wherein said rotor has an axis of rotation and
2 said first and second gaps are separated along said axis of rotation, said pressure changes
3 resulting from an axial forces on said rotor.

1 **Claim 12** (original): The apparatus of claim 10 wherein said rotor has an axis of rotation and
2 said first and second gaps are separated along a line transverse to said axis of rotation, said
3 pressure changes resulting from radial forces on said rotor.

1 **Claim 13** (canceled)

1 **Claim 14** (previously presented): The apparatus of claim 10 wherein said stator is a laminate of
2 platelets, said first and second channels reside in said stator and are defined by superimposed
3 openings in adjacent platelets.

1 **Claim 15** (new): The apparatus of claim 1 wherein said first and second signals are electrical
2 signals and said first and second signal generating means are pressure transducers each
3 converting pressure to an electrical signal representative of said pressure.

1 **Claim 16** (new): The apparatus of claim 1 wherein said first and second signals are fluid
2 pressure levels detected within said first and second gaps respectively.